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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,275	02/24/2004	Brian J. Marquardt	10-01A	2492

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EXAMINER	
STAFIRA, MICHAEL PATRICK	
ART UNIT	**PAPER NUMBER**
2877	

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/786,275	MARQUARDT ET AL.	
	Examiner	Art Unit	
	Michael P. Stafira	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-25* is/are allowed.

6)☒ Claim(s) *26-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *2/24/2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/28/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

In the specification under CROSS-REFERENCE TO RELATED APPLICATIONS on page 1, please amend the specification to indicate the U.S. application is now U.S. Patent 6,831,745 in response to this communication.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 26-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle ('551) in view of Wach et al. ('234).

Claim 26

Doyle ('551) discloses an immersion probe housing tube (Fig. 9, Ref. 110) having a first opening at a first end and a second opening at a second end (See Fig. 8); and a gasket (Fig. 9, Ref. 116) disposed inside said immersion probe housing tube (Fig. 9, Ref. 110) positioned between said immersion probe housing tube (Fig. 9, Ref. 11) and said the lens (Fig. 9, Ref. 112)(Col. 10, lines 62-64) at said first opening (See Fig. 9), wherein said gasket (Fig. 9, Ref. 116) is on top of and in contact with the lens (Fig. 9, ref. 112).

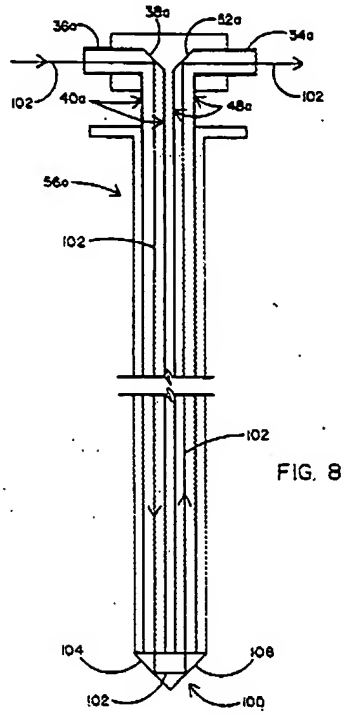

FIG. 8

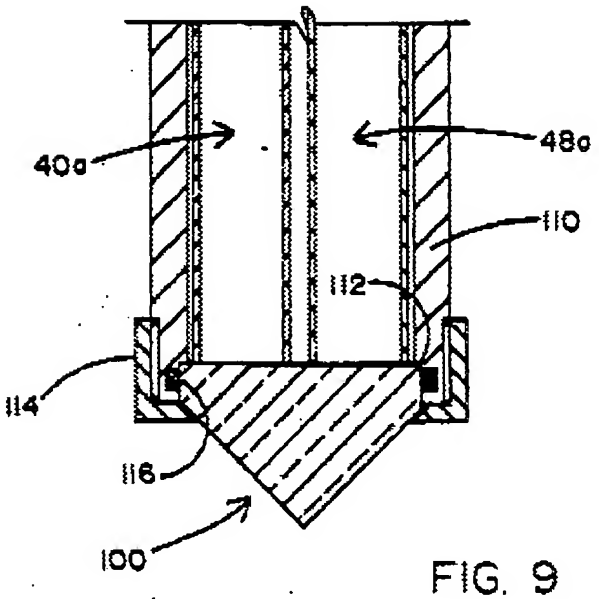

FIG. 9

Doyle ('551) substantially teaches the claimed invention except that it does not show a spherical lens disposed in the probe at a first opening. Wach et al. ('234) shows that it is known to provide a spherical lens (Fig. 53b) disposed at the end of a probe for an apparatus probe for measuring spectroscopy. It would have been obvious to combine the device of Doyle ('551) with the spherical lens of Wach et al. ('234) for the purpose of providing a focal length equal to the distance from its surface to the axis, therefore increasing the sensitivity of the measuring probe.

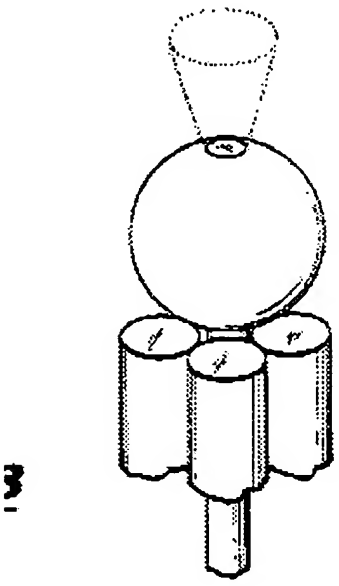

Fig. 53B

Claim 27

Doyle ('551) further discloses the gasket is an o-ring (Col. 8, lines 39-40).

Claim 28

The reference of Doyle ('551) further discloses the immersion probe housing tube comprises a material chosen from the group consisting of metals (Col. 5, line 37).

Claim 29

Doyle ('551) discloses the immersion probe housing tube comprises a metal alloy (Col. 5, line 37).

Claim 30 & 31

Doyle ('551) in view of Wach et al. ('234) discloses the claimed invention except for the spherical lens is a material from a group of silica, glass, sapphire etc... or is made from sapphire.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Doyle ('551) in combination with Wach et al. ('234) with the material groups or made from sapphire since it was well known in the art that using the material groups or sapphire provides a lens surface that is resistant to harsh environments, therefore allowing the lens to be measured in different conditions without losing any sensitivity.

Claim 32

Doyle ('551) discloses an instrument interface at said second opening of said second end of said immersion probe housing tube (Col. 8, line 11).

Claim 33

The reference of Doyle ('551) further discloses the interior surface of said immersion probe housing tube at said first opening of said immersion probe housing tube is chosen from the group consisting of a round (See Fig. 9).

Claim 34 & 35

Doyle ('551) substantially teaches the claimed invention except that it does not show a ball lens or forms a geometric shape. Wach et al. ('234) shows that it is known to provide a ball lens or geometric shape (Fig. 53b) disposed at the end of a probe for an apparatus probe for measuring spectroscopy. It would have been obvious to combine the device of Doyle ('551) with the ball lens or geometric shape of Wach et al. ('234) for the purpose of providing a focal length equal to the distance from its surface to the axis, therefore increasing the sensitivity of the measuring probe.

Claim 36 & 38

Doyle ('551) substantially teaches the claimed invention except that it does not show a

spherical lens provides a constant focal length or a constant focal volume. Wach et al. ('234) shows that it is known to provide a spherical lens (Fig. 53b) for providing a constant focal length or constant focal volume for an apparatus probe for measuring spectroscopy. It would have been obvious to combine the device of Doyle ('551) with the spherical lens of Wach et al. ('234) for the purpose of providing a focal length equal to the distance from its surface to the axis, therefore increasing the sensitivity of the measuring probe.

Claim 37

Doyle ('551) in view of Wach et al. ('234) discloses the claimed invention except for the apex is between 50 microns to about 200 microns. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Doyle ('551) in view of Wach et al. ('234) with the apex between 50 and 200 microns since it was well known in the art that having an apex between 50 and 200 microns allows the measuring device to measure a sample that would decrease the amount of noise entering the measurement, therefore making for a more accurate measurement.

Claim 39

Doyle ('551) further discloses the immersion probe housing tube is cylindrical (Col. 6, line 41).

Allowable Subject Matter

3. Claims 1-25 are allowed over the prior art of record.

4. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, the prior art fails to disclose or make obvious a spectroscopic analysis method for detecting the presence or measuring the concentration of analytes in a sample, said method comprising the steps of directing said collimated incident optical beam through an optical immersion probe comprising a probe housing tube having a first end at an opening and a second end, a spherical lens fixed within said opening of said probe housing tube, and a seal positioned between said spherical lens and said probe housing tube, wherein said spherical lens focuses said incident optical beam; collecting scattered light from said analytes with said spherical lens, thereby generating a beam of scattered light; and analyzing and detecting said beam of scattered light with a photodetector, thereby detecting the presence of analytes in the sample, measuring the concentration of analytes in the sample or both, and in combination with the other recited limitations of claim 1. Claims 2-22 are allowed by the virtue of dependency on the allowed claim 1.

Regarding claim 23, the prior art fails to disclose or make obvious a spectroscopic analysis method for detecting the presence or measuring the concentration of analytes in a sample, said method comprising the steps of directing said collimated incident optical beam through an optical immersion probe comprising a probe housing tube having a first end at an opening and a second end, a spherical lens fixed within said opening of said probe housing tube, and a seal positioned between said spherical lens and said probe housing tube, wherein said spherical lens focuses said incident optical beam; collecting fluorescent light from said analytes in said sample with said spherical lens, thereby generating a beam of fluorescent light; and analyzing and detecting said beam of fluorescent light with a photodetector, thereby detecting the presence of analytes in the sample, measuring the concentration of analytes in the sample or

both, and in combination with the other recited limitations of claim 23. Claims 24-25 are allowed by the virtue of dependency on the allowed claim 23.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael P. Stafira
Primary Examiner
Art Unit 2877

February 16, 2005